AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Canceled)

2. (Currently Amended) [[The]] A manufacturing method of [[the]] a semiconductor device ~~according to claim 1~~, comprising:

providing a groove having a thickness equal to or larger than a finishing thickness on a first surface of a semiconductor wafer on which a semiconductor element is formed;

affixing a pressure sensitive adhesive (PSA) tape onto the first surface of the semiconductor wafer in which the groove is formed;

reducing the thickness of the semiconductor wafer by processing a second surface opposite to the first surface of the semiconductor wafer onto which the PSA tape is affixed, so as to separate the semiconductor wafer into a plurality of semiconductor chips on which the semiconductor element is formed;

affixing an adhesive layer onto an entire rear surface of the separated semiconductor wafer;

cutting the adhesive layer so as to separate the adhesive layer for each of the semiconductor chips; and

peeling off the PSA tape from the semiconductor wafer while fixing the semiconductor wafer under suction by use of a porous member segmented into at least two sucking areas;

wherein peeling off the PSA tape includes:

fixing the semiconductor wafer onto the porous member by sucking the semiconductor wafer with at least two systems of suction paths in association with the sucking areas in the direction in which the PSA tape is peeled off; and

when the PSA tape is peeled off along the peeling direction and part of the PSA tape is peeled off in one of the sucking areas adjacent to each other, switching the suction paths therebetween in the vicinity of the other adjacent sucking area which the peeling of the PSA tape approaches so as to suck the semiconductor wafer, thereby fixing the semiconductor wafer onto the porous member in the other sucking area,

the adhesive layer is cut in parallel with a control for switch between the at least two or more systems of suction paths in response to the state in which the adhesive layer is cut.

3. (Currently Amended) [[The]] A manufacturing method of [[the]] a semiconductor device ~~according to claim 1~~, comprising:

providing a groove having a thickness equal to or larger than a finishing thickness on a first surface of a semiconductor wafer on which a semiconductor element is formed;

affixing a pressure sensitive adhesive (PSA) tape onto the first surface of the semiconductor wafer in which the groove is formed;

reducing the thickness of the semiconductor wafer by processing a second surface opposite to the first surface of the semiconductor wafer onto which the PSA tape is affixed, so as to separate the semiconductor wafer into a plurality of semiconductor chips on which the semiconductor element is formed;

affixing an adhesive layer onto an entire rear surface of the separated semiconductor wafer;

cutting the adhesive layer so as to separate the adhesive layer for each of the semiconductor chips; and

peeling off the PSA tape from the semiconductor wafer while fixing the semiconductor wafer under suction by use of a porous member segmented into at least two sucking areas;

wherein the semiconductor wafer has a sealing resin formed on the first surface, and a low dielectric constant insulation film formed in contact with this sealing resin;

the PSA tape is adhesively bonded onto the first surface of the semiconductor wafer via the sealing resin and the low dielectric constant insulation film; and

the method further comprises fusing at least part of the low dielectric constant insulation film and the sealing resin so as to fix the low dielectric constant insulation film on the sealing resin.

4. – 11. (Canceled)

12. (Currently Amended) [[The]] A manufacturing method of [[the]] a semiconductor device ~~according to claim 11~~, comprising:

providing a groove having a thickness equal to or larger than a finishing thickness on a first surface of a semiconductor wafer on which a semiconductor element is formed;

affixing a pressure sensitive adhesive (PSA) tape onto the first surface of the semiconductor wafer in which the groove is formed;

reducing the thickness of the semiconductor wafer by processing a second surface opposite to the first surface of the semiconductor wafer onto which the PSA tape is affixed, so as to separate the semiconductor wafer into a plurality of semiconductor chips on which the semiconductor element is formed;

affixing an adhesive layer onto an entire rear surface of the separated semiconductor wafer;

peeling off the PSA tape from the semiconductor wafer while fixing the semiconductor wafer, to which the adhesive layer is affixed, under suction by use of a porous member segmented into at least two sucking areas; and

cutting the adhesive layer affixed onto the entire second surface so as to separate the adhesive layer for each of the semiconductor chips, while fixing the semiconductor wafer, from which the PSA tape has been peeled off, onto the porous member under suction;

wherein peeling off the PSA tape includes:

fixing the semiconductor wafer onto the porous member by sucking the semiconductor wafer with at least two systems of suction paths in association with the sucking areas in the direction in which the PSA tape is peeled off; and

when the PSA tape is peeled off along the peeling direction and part of the PSA tape is peeled off in one of the sucking areas adjacent to each other, switching the suction paths therebetween in the vicinity of the other adjacent sucking area which the peeling of the PSA tape approaches so as to suck the semiconductor wafer, thereby fixing the semiconductor wafer onto the porous member in the other sucking area,

the adhesive layer is cut in parallel with a control for switch between the at least two or more systems of suction paths in response to the state in which the adhesive layer is cut.

13. (Currently Amended) [[The]] A manufacturing method of [[the]] a semiconductor device ~~according to claim 11~~, comprising:

providing a groove having a thickness equal to or larger than a finishing thickness on a first surface of a semiconductor wafer on which a semiconductor element is formed;

affixing a pressure sensitive adhesive (PSA) tape onto the first surface of the semiconductor wafer in which the groove is formed;

reducing the thickness of the semiconductor wafer by processing a second surface opposite to the first surface of the semiconductor wafer onto which the PSA tape is affixed, so as to separate the semiconductor wafer into a plurality of semiconductor chips on which the semiconductor element is formed;

affixing an adhesive layer onto an entire rear surface of the separated semiconductor wafer;

peeling off the PSA tape from the semiconductor wafer while fixing the semiconductor wafer, to which the adhesive layer is affixed, under suction by use of a porous member segmented into at least two sucking areas; and

cutting the adhesive layer affixed onto the entire second surface so as to separate the adhesive layer for each of the semiconductor chips, while fixing the semiconductor wafer, from which the PSA tape has been peeled off, onto the porous member under suction;

wherein the semiconductor wafer has a sealing resin formed on the first surface, and a low dielectric constant insulation film formed in contact with this sealing resin;

the PSA tape is adhesively bonded onto the first surface of the semiconductor wafer via the sealing resin and the low dielectric constant insulation film; and

the method further comprises fusing at least part of the low dielectric constant insulation film and the sealing resin so as to fix the low dielectric constant insulation film on the sealing resin.

14. – 20. (Canceled)